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| 1. What is our purpose? | | |
| **To inquire into the following:**   1. **Transdisciplinary Theme**   How the world works   1. **Central Idea**   People develop awareness of their surroundings by estimating and comparing measurable attributes of real objects and events, in order to function in daily life**.**  **Summative Assessment Task(s):**  What are the possible ways of assessing students’ understanding of the central idea?  What evidence, including student-initiated actions, will we look for?  Children will participate in a challenge race by facing 3 circuits**:**   1. **ESTIMATING B. COMPARING C: MEASURING.** The 3 classes will rotate.   **Prompt:** Make 4 groups of 6 students each. Assign the challenge according to the circuit they are in. Look for the strategies they use to show their understanding.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **A** | **B** | **C** | **D** | | ESTIMATION  COMPARING  MEASURING | Estimates, compares and measures, with non-standard units of measurement, time and temperature (short, long, tall, heavy, light, hot, warm, cold, before, after, day, night). | Estimates, compares and measures, with non-standard units of measurement length, height and weight (short, long, tall, heavy, light). | Estimates, compares and measures length  (Short, long). | Is not able to estimate, compare or measure with non-standard units of measurement, time and temperature (short, long, tall, heavy, light, hot, warm, cold, before, after, day, night). | | | |
| **Class/Grade:**Kinder | PYP Planner |
| **Age Group:**5 to 6 years old |
| **School:**Colegio Colombo Británico |
| **School Code:**700202 |
| **Title:** | |
| **Year:**2011-2012 | |
| **Teachers:** Sidey Viedman, Mark Hustad, Maggie Quiñonez, Laura Restrepo, Claudia Madriñán, Adriana Yepes | |
| **Proposed Duration:**  hours over weeks | |
| 2. What do we want to learn? | |
| What are the key concepts to be emphasized within this inquiry?  FORM FUNCTION PERSPECTIVE  ESTIMATION COMPARISON | |
| What lines of inquiry will define the scope of the inquiry into the central idea?   * An inquiry into the relationship between comparing and measuring * the attributes of objects in our surroundings * how people use attributes to compare and measure * the way I estimate and compare in order to solve daily life situations | |
| What teacher questions/provocations will drive these inquiries?  Teacher Questions  How can we measure objects?  What can we use?  How can you compare objects?  What do you need to have in mind when you are measuring and comparing objects?  Why is it important to measure objects?  **Provocations**  The Children will watch videos where people are having difficulties getting through or in a space. | |

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| **3. How might we know what we have learned?**  This column should be used in conjunction with “How best might we learn?” | **4. How best might we learn?** |
| **What are the possible ways of assessing students’ prior knowledge and skills? What evidence will we look for?**  Teacher will place two sets of objects on 2 different tables. Teacher will also place objects used as non-standard units of measurement between the tables.  The teacher will ask the children how the objects on the tables can be measured and take notes on what the children say. Then, will ask them if they could use the objects between the tables to measure. They will explore and the teacher writes about it.  **What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?**  **The relationship between comparing and measuring**  Children will estimate and compare objects according to the length, weight, size and share their conclusions  Strategy: Open-ended task Tool: Anecdotal record  **The attributes of objects in our surroundings**  Children will choose an object and describe it, how it can be used and what it is made of.  Strategy: Observation Tool: Checklist  **Uses of attributes to compare and measure**  Children will be shown objects of different sizes. They will choose a non-standard unit of measurement to estimate its length, width or height, and then they will measure to see the true measurement.  Strategy: Observation Tool: Checklist  **Estimate and compare in order to solve daily life situations**  Children will use a non-standard unit of measurement to estimate and measure the distance  between two points.  Strategy: Observation Tool: Checklist | **What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?**  **MEDIA: PRINTED, AUDIOVISUAL, INTERNET**  Children will watch videos of people not being able to move through or get into a space.  **INTERVIEWS: EXPERTS**  **Interactive Presentations by experts**  **Maria del Carmen Cabal:** Children will be divided into 5 groups and each group will have a container, the expert asks questions such as: What objects fit in it? How do they know? Children will prove their hypothesis. The expert is going to give many opportunities to practice at the end all together will make an analysis of what happened and the results of the inquiry.  **SURVEY :**  Children will go around and ask people what non-standard units they use to measure.  **OBSERVATION / EXPERIENCE: ACTIVE, HANDS-ON**  Children will have many opportunities to compare objects in their classroom.  They will use different tools to measure classroom objects and solve problems.  They will measure different objects keeping in mind the tool and how many times they will use that tool to accomplish the goal (class circle, height of the board, the length of the notebook, length of the folder, the height of the monkey bars, the height of the sink)  The children will rotate in a treasure hunt with 3 stations, where they will measure, classify and estimate different objects in order to develop awareness of their surroundings and the measurable characteristics of things. Children will estimate, compare and measure themselves and draw conclusions  **What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?**  **Transdisciplinary Skills**  **Specific maths skills**  **Count, sort, match and compare objects:** Children will count, sort, match and compare using non-standard units of measurement objects and spaces found in their surrounding in order to solve daily life situations.  **Use mathematical vocabulary:** Children will learn to use the proper mathematical vocabulary of measurement.  **Make reasonable estimates:** Children will learn to make viable estimations with more accuracy.  **Learner Profile**  ***ATTRIBUTES***  Children will be thinkers when they provide solutions to problems raised by teachers as acquiring knowledge of the size, length or weight of an object. They will also strive to be communicators when they explain their findings and possible solutions to the situations.  ***ATTITUDES***  Children will show creativity when dealing with the problems they face that require measurement. |
| **5. What resources need to be gathered?** |
| **What people, places, audio-visual materials, related literature, music, art, computer software, etc. will be available?**  Computers, software, books and any objects to be measured or to be used as non-standard measurement units.  **How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?**  Everything in our surroundings is measurable. |

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| **6. To what extend did we achieve our purpose?** |
| **Assess the outcome of the inquiry by providing evidence of students’ understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.**  Children got a good idea on how to estimate with a viable accuracy, and how to consequently, measure to compare the difference between the estimation and the true measurement. This gave them the idea on how to estimate measurable attributes of real objects and events that help them function in real life.  Children started to use the vocabulary to talk among them and make exercises by themselves in the playground to see if they fit in the different spaces. |
| **How you could improve on the assessment task(s) so that you would have a more accurate picture of each student’s understanding of the central idea.**  We should explain to the children in advanced how to estimate rather than guess for the teachers to have a more accurate picture of how much the children learnt.  Give them more opportunities to practice the abilities, before the performance assessment. |
| What was the evidence that connections were made between the central idea and the transdisciplinary theme?  If children are aware of their surroundings using estimation and measurement in daily life situations, it gives explanations of some ways the world works. |

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| **7. To what extent did we include the elements of the PYP?** |
| **What were the learning experiences that enabled students to:**   * Develop an understanding of the concepts identified in “What do we want to learn?”   There were different activities that helped children to understand the concepts proposed in this independent inquiry, the video was a good opening for them. It helped teachers to see how much children know about the lines. The survey did provide children knowledge that helped to have a better comprehension of the lines of inquiry. One of the clearest activities was the one about the analysis how to measure their daily life objects with different tools; it reinforced the understanding about the concepts. Questioning related to the unit, as part of the daily routine, helped children to make connections and reinforce their learning.   * Demonstrate the learning and application of particular transdisciplinary skills?   The skills worked during the unit helped them to have a better vision about the importance of measurement to solve problems in daily life situations.   * Develop particular attributes of the learner profile and/or attitudes?   Children had the opportunity to develop the attributes and showed self-confidence  to explain all their findings. They were able to communicate their results and knowledge learnt.  They also showed their abilities to draw conclusions and make inferences about estimation, comparison and measuring, They were thinkers by solving problems in their daily life. |

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| **8. What student-initiated inquiries arose from the learning?** |
| **Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.**  Children started to play spontaneously to measure objects around and compare among themselves.  They talked among themselves about the topic and looked for other non-standard units and made jokes about that.  **What student–initiated actions arose from the learning?**  Some children started to race to measure distances during recess time.  They started to measure each other to see who was taller or shorter. |
| **9. Teacher notes** |
| The time was very short to develop the activities.  During the Prior knowledge teachers realized children had a good level of knowledge about non-standard units. We must have in mind the prior knowledge during the planning of the learning experiences.  If time permits we would like to have more experts and field trips.  We suggest starting the unit from the beginning of the year. |